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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,520	02/02/2006	Abbas Razavi	F-863 (31223.00086)	9377
25264	7590	12/15/2010	EXAMINER	
FINA TECHNOLOGY INC PO BOX 674412 HOUSTON, TX 77267-4412				LU, C CAIXIA
ART UNIT		PAPER NUMBER		
1765				
MAIL DATE		DELIVERY MODE		
12/15/2010		PAPER		

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ABBAS RAZAVI

Appeal 2009-010750
Application 10/535,520
Technology Center 1700

Before ADRIENE LEPIANE HANLON, DEMETRA J. MILLS, and
KAREN M. HASTINGS, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting claims 22-26 and 28-45. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

Claim 22 is illustrative of the subject matter on appeal:

22. A olefin polymerization catalyst composition comprising a metallocene catalyst component characterized by the formula:



wherein:

(a) Cp^1 and Cp^2 are each independently a substituted or unsubstituted cyclopentadienyl group, a substituted or unsubstituted indenyl group or a substituted or unsubstituted fluorenyl group wherein at least one of Cp^1 and Cp^2 incorporates a nitrogen (N) or phosphorus (P) atom in its cyclopentadienyl ring, and wherein at least one of Cp^1 and Cp^2 is a substituted or unsubstituted fluorenyl group;

(b) R'' is a structural bridge between Cp^1 and Cp^2 imparting stereorigidity to the ligand structure provided that when Cp^1 incorporates a phosphorus atom in its cyclopentadienyl ring and Cp^2 is free of a phosphorus atom in its cyclopentadienyl ring, the bridge R'' is connected to the phosphorus atom in Cp^1 or to a carbon atom in Cp^1 which is distal to the phosphorus atom;

(c) M is a transition metal from Group IIIB, Group IVB, Group VB or Group VIB of the Periodic Table of Elements (CAS Version);

(d) Q is a halogen or a hydrocarbyl group having from 1-20 carbon atoms; and

(e) p is equal to the valence of the transition metal M minus 2.

The Examiner maintains, and Appellant appeals, the rejection of all the claims under 35 U.S.C. § 103(a) as unpatentable over Katayama².

Appellant argues the rejected claims as a group (Br. 11-14).³ Thus, we select independent claim 22 as the representative claim on which our discussion will focus.

MAIN ISSUE ON APPEAL

Did the Examiner reversibly err in determining that the claimed metallocene catalyst would have been obvious over Katayama, because, as alleged by Appellant, Katayama “does not disclose a catalyst system comprising a fluorenyl” (Br. 13)?

We answer this question in the negative.

PRINCIPLES OF LAW

In assessing whether a claim to a combination of prior art elements would have been obvious, the question to be asked is whether the improvement of the claim is more than the predictable use of prior art elements according to their established functions. *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). The analysis need not seek out precise teachings directed to the specific subject matter of the claim, for it is proper

² EP 0 741, 145 A1, published November 6, 1996.

³ Appellant's reference to “the specific catalyst systems listed in claim 42” (Br. 13) is not a separate argument for patentability. Such statements merely pointing out what a claim recites are not separate arguments for patentability. 37 C.F.R. § 41.37(c)(1)(vii).

to take account of the inferences and creative steps that a person of ordinary skill in the art would employ. *Id.* at 418.

“For obviousness under § 103, all that is required is a reasonable expectation of success.” *In re O’Farrell*, 853 F.2d 894, 904 (Fed. Cir. 1988).

ANALYSIS

with Factual Findings

We have thoroughly reviewed each of Appellant’s arguments for patentability. However, we are in agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner’s rejections for essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

Appellant’s main contention in the Brief, that Katayama does not disclose a catalyst system comprising a fluorenyl, is of no persuasive merit. As pointed out by the Examiner, Katayama explicitly describes fluorenyl groups may be used in the catalyst (Ans. 3, 5; Katayama p. 4, ll. 47-58). Notably, Appellant has not disputed the Examiner’s finding that specified metallocene compounds within the description of Katayama “would meet the limitations of metallocene compounds (II)-(V) of [dependent] claim 25.” (Ans. 4; no responsive Brief has been filed).

It is well established that the fact that a reference that “discloses a multitude of effective combinations does not render any particular formulation less obvious.” *Merck & Co., Inc. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) (citing *In re Corkill*, 771 F.2d 1496, 1500

(Fed. Cir. 1985) (obviousness rejection of claims affirmed in light of prior art teaching that “hydrated zeolites will work” in detergent formulations, even though “the inventors selected the zeolites of the claims from among ‘thousands’ of compounds”).⁴

Appellant has not provided any evidence or persuasive technical reasoning why a metallocene compound as claimed was not encompassed by Katayama’s generic teachings as explained by the Examiner. Accordingly, upon properly considering the prior art reference as a whole, we agree with the Examiner that one of ordinary skill in the art would have found the claimed compounds obvious over the teachings of Katayama, with a reasonable expectation of successfully providing a catalyst composition for olefin polymerizations as desired therein (Ans., e.g., 4).

Appellant’s contentions that the Examiner has failed to provide any evidence to support the statement that an artisan would have understood that all bridging positions in the ring could be a bridging position (Br. 13, 14), (as well as their request for an affidavit under 37 CFR § 1.104 from the Examiner), is also unavailing. The Examiner is relying upon the inferences that one of ordinary skill in the art would have made from the reference teachings, and is not relying upon the personal knowledge of the Examiner. Notably, Appellant has not provided any substantive argument or technical reasoning why one of ordinary skill in the art would not have, using no more

⁴ See also, *In re Susi*, 440 F.2d 442, 445 (CCPA 1971) (obviousness rejection affirmed where the disclosure of the prior art was “huge, but it undeniably include[d] at least some of the compounds recited in appellant’s generic claims and [was] of a class of chemicals to be used for the same purpose as appellant’s additives”).

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than ordinary creativity, considered the claimed bridge positions obvious over the teachings of Katayama (*see generally* Br.).

Thus, in our view, the Examiner properly concluded that one of ordinary skill would have considered the use of the bridge positions as claimed obvious from the teachings of Katayama (Ans. 4).

Appellant has not offered any evidence of unexpected results on this record.

Accordingly, the evidence as a whole supports the Examiner's conclusion of obviousness, and on the record before us, Appellant has not shown that Katayama fails to suggest the use of a fluorenyl group in its metallocene catalyst. Thus, we sustain the § 103 rejection of claims 22-26 and 28-45 as maintained by the Examiner.⁵

DECISION

We affirm the Examiner's § 103 rejection.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

AFFIRMED

kmm

FINA TECHNOLOGY INC
P.O. BOX 674412
HOUSTON, TX 77267-4412

⁵ Only those arguments actually made by Appellant has been considered in this decision. Arguments which could have been made but that Appellant chose not to make have not been considered and are deemed to be waived. See 37 C.F.R. § 41.37(c)(1)(vii) (2008).